
Nova Scotia Utility and Review Board

IN THE MATTER OF *The Public Utilities Act*, R.S.N.S. 1989, c.380, as amended

M11108

2023 Load Forecast Report

**NS Power
Rebuttal Evidence**

September 14, 2023

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1.0 INTRODUCTION

In accordance with the *Nova Scotia Wholesale Electricity and Renewable to Retail Market Rules*¹, the Nova Scotia Power System Operator (NSPSO) is required each year to provide the Nova Scotia Utility and Review Board (NSUARB, Board) with its 10-year energy and demand forecast by the end of April for the period beginning the following January (Load Forecast Report).

The requirements for preparing the Load Forecast Report are provided in Chapter 3 of the *Nova Scotia Wholesale Electricity and Renewable to Retail Market Rules*. Since 2007, Nova Scotia Power Inc. (NS Power, Company) has filed its annual Load Forecast Reports in compliance with this requirement.

Following the filing of the 2023 Load Forecast Report on April 29, 2023, the Board issued a Hearing Order directing a paper hearing associated with its consideration of the Report.² Interventions were received from the Consumer Advocate (CA), the Small Business Advocate (SBA), counsel for the Industrial Group (IG), EfficiencyOne (E1) and Eastward Energy.

On July 8, 2023, NS Power provided responses to Information Requests (IRs) issued by NSUARB staff, Synapse Energy Economics, Inc. (Synapse) on behalf of NSUARB Counsel, the CA, the SBA, and E1. Intervenor Evidence was subsequently filed by Synapse and the CA's consultant, John D. Wilson, Grid Strategies, LLC. A submission was also filed by the SBA. Intervenor submissions were generally pleased with amendments to the 2023 Load Forecast report based on recommendations arising from the 2022 Load Forecast Report proceeding and the Board's corresponding directives.

Synapse noted improvements in the 2023 Load Forecast, NS Power's responsiveness, and the forecast's reasonableness among its general introductory comments as follows:

¹ Nova Scotia Wholesale and Renewable to Retail Electricity Market Rules, effective 2007 02 01, amended 2016 06 01.

² M11108, 2023 Load Forecast Report, NSUARB Hearing Order, May 2, 2023.

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1 The 2023 Load Forecast Report 1 (Report) continues the trend of improvement in
2 expository quality by providing additional information. However, Synapse
3 observes that the 2023 forecast predictions are significantly above those of recent
4 years. This is in large part because of provincial and federal efforts to reduce fossil
5 fuel use with additional electrification.³

6
7 //

8
9 In general, the forecast seems reasonable given the ongoing changes, but there are
10 significant increases in the energy and peak requirements. These increases need to
11 be explored and understood. In recent years energy and peak loads have been
12 relatively flat, but the predicted increases will have numerous implications. The
13 primary driving factors appear to be increased electrification and population and
14 economic growth.⁴

15
16 //

17 Our evidence from last year included several recommendations and NSPI has
18 moved to address most of them. For the record, we have attached our
19 recommendations and NSPI's replies in attachments to this report.
20

21 Most of the issues are addressed in NSPI's current Report although one has been
22 deferred and another is ongoing (See Appendix B). We wish to acknowledge
23 NSPI's responsiveness. While there are still some issues to consider, this forecast
24 represents a further improvement over the previous one.⁵

25
26 //

27 We support NSPI's ongoing efforts to improve the transparency and accuracy of
28 the load forecast. There is still more to do; but overall, NSPI's Report is very well
29 done and better explains the underlying factors driving the forecast.⁶

30
31 John Wilson for the CA provided noted improvements to the 2023 Load Forecast as follows:
32

33 NS Power made two notable improvements that I would like to comment on. First,
34 NS Power updated the peak design temperature to reflect a lagged 12-hour average
35 temperature as well as wind speed. Second, NS Power created a hybrid scenario for

³ M11108, Exhibit N-8, Synapse Evidence, July 18, 2023, page 1.

⁴ Ibid, page 4.

⁵ Ibid, page 27.

⁶ Ibid, page 29.

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1 electrification of building heat to reflect peak mitigation through the use of non-
2 electric heat sources.

3
4 I would also like to acknowledge that NS Power evaluated adding load-weighted
5 weather from multiple weather stations for its peak model. This issue was first
6 raised in the evidence of Mr. James F. Wilson for the 2021 Load Forecast Report.
7 I concur with the report's conclusion that the effects of using multiple weather
8 stations has minimal impact on the load forecast model, and that it is reasonable to
9 continue using Shearwater RCS as the only weather station informing the model.⁷
10

11 The SBA noted improvements to the 2023 Load Forecast as follows:
12

13 The SBA is pleased to see many of the changes suggested in the 2022 Load Forecast
14 matter (M10569) incorporated into the Report, including load-weighted weather
15 from multiple stations, updates to the peak design temperature, and the hybrid
16 scenario for electrification of building heat, among others. The SBA is particularly
17 pleased to see data incorporated from the January 2023 Smart Grid Nova Scotia
18 Semi-Annual Report in this iteration of the Load Forecast.⁸
19

20 The Company's responses to the Intervenor's specific recommendations are set out in this Rebuttal
21 Evidence.
22

⁷ M11108, Exhibit N-9, Evidence of John Wilson, July 18, 2023, page 4, lines 4 - 13.

⁸ M11108, SBA Submission, July 18, 2023, page 1.

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2.0 RESPONSE

The evidence from Synapse, and the CA, as well as the SBA’s submission are primarily focused on the following issues:

1. Further details and investigation of the impact to energy and peak from expected electrification over the coming years.
2. Further details and investigation of the impact of new technologies to energy and peak, specifically learnings and potential peak mitigation from the smart grid project, direct control of water heaters, and time variable rates.

Analysis of Electrification

The 2022 Load Forecast included the impact of electrification efforts that will be required to meet policy-driven reductions to carbon dioxide (CO₂) emissions in the province over the next 30 years. For the 2023 Load Forecast, increased EV sales targets mandated by the government increase both EV sales and peak in future years represent a significant change as compared to prior forecasts. NS Power agrees that further investigation into the impact of these assumptions is required, and as more data is gathered through various ongoing initiatives (the Integrated Resource Plan (IRP) Action Plan and Smart Grid Nova Scotia (SGNS) in particular), they will be incorporated in future load forecasts.

Technology

With a forecast of increased sales and, in particular, increased peak demands, peak mitigating measures will play a key role over the coming years. At a high level, the 2023 Load Forecast already includes the projected impact from new rate programs, direct load control, commercial curtailment as outlined in NS Power’s 2020 IRP, and an assumed reduction in peak related to managed EV charging. Several projects are in progress to evaluate the impact of new technologies,

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1 including the SGNS project and the water heater control project. Intervenors expressed interest in
2 seeing the results of those projects included in the Load Forecast. As data from the projects is
3 collected and analyzed, results will be included in future forecasts as appropriate. In the 2023
4 Load Forecast, details on EV charging patterns obtained from the Smart Grid project were included
5 in Section 4.4 of the Load Forecast Report.

6
7 Other developing technologies such as battery storage, heat pump hot water heaters, and induction
8 ovens were also mentioned by intervenors as areas for further investigation, and as more
9 information becomes available on the uptake of these technologies it will also be included in future
10 load forecasts. The impact of heat pumps and their ability to displace existing heating sources,
11 particularly at peak times, is of particular interest as heat pump technology is forecast to play a
12 major role in future electrification. The impact of this technology on system demands will continue
13 to be updated as more information is gathered, as it was in the 2023 Load Forecast with the
14 inclusion of the heat pump consumption study results.

15
16 Finally, the impact of rates on energy consumption patterns is likely to play a key role in partially
17 offsetting peak demand increases in future years. The current TVP pilot will be concluding in
18 2024, and lessons learned from that pilot will be used to forecast future impacts from rate design.

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3.0 RECOMMENDATIONS

Synapse, the CA, and the SBA provided additional recommendations for future load forecasts. NS Power's responses to those recommendations are set out below.

3.1 Synapse

Synapse provides the following recommendations and requests for clarification:⁹

3.1.1 Recommendation 1:

We ask that NSPI explore the benefits of increasing DSM levels in the future.

NS Power Response:

Exploring the benefits of different levels of DSM is an exercise that is part of the Integrated Resource Plan (IRP) process, not the Load Forecast Report. Please refer to the Company's recently completed Evergreen IRP proceeding and corresponding documentation at <https://irp.nspower.ca/documents/annual-evergreen-materials/>. In particular, discussions of various energy efficiency scenarios modeled and their impacts on system cost are discussed on page 13 of the updated IRP Action Plan and Roadmap document.

3.1.2 Recommendation 2:

We ask NSPI to continue to investigate the energy and peak load effects of heat pumps in future forecasts, especially given the variance between NSPI's analysis and E3's and the increasing availability of AMI data that is expected in the future. NSPI should specifically monitor trends in heat pump adoption given that this year's forecast was modified upward. Finally, NSPI should seek to validate any assumptions about the extent to which heat pumps displace legacy fossil-based heating equipment, especially in light of the sensitivities that NSPI included testing this issue, and NSPI should also seek to validate any other assumptions about customer usage of secondary heating equipment.

⁹ M11108, Exhibit N-8, Synapse Evidence, July 18, 2023, pages 28-29.

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NS Power Response:

NS Power agrees with this recommendation. Heat pump data related to energy and peak effects is aligned with the most recent studies available for Nova Scotia (Itron and E3). As more data is gathered on the impact of heat pumps through AMI and other sources, it will be incorporated into the load forecast. Heat pump adoption numbers are updated annually based on data obtained from contractor surveys and reporting as outlined in the response to E1 IR-01.

3.1.3 Recommendation 3:

In the next load forecast report, we recommend that NSPI leverage the data from its water heater demand response pilot in formulating its residential peak forecast. We further recommend consideration of heat pump-based hot water heating in the next forecast.

NS Power Response:

As discussed in Section 10 of the Load Forecast Report, the current peak forecast methodology does not incorporate specific end uses. Work is underway to develop a class-level peak forecast rather than a system level forecast, but development of a bottom-up end-use specific forecast is still not feasible due to a lack of end-use load data. In terms of incorporating heat pump-based hot water heating, there is limited data available on heat pump water heater uptake. As discussed in response to NSUARB IR-06, improved hot water efficiency in the forecast implies improvements in technology, but does not specifically take heat pump water heaters into account.

3.1.4 Recommendation 4:

NSPI should carefully monitor EV adoption and update its forecast as needed. NSPI should also continue to develop and implement rate designs and other programmatic options to reduce on-peak EV charging as penetration increases. These load management strategies should be reflected in the next load forecast with greater detail, with all assumptions supported empirically to the maximum extent possible.

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NS Power Response:

EV uptake and any expected changes to future uptake are included in the forecast, including the latest number of registered EVs according to provincial data. Rate design is beyond the scope of the load forecast, but any expected impacts from rate design activities will be included in future reports, as well as any relevant findings from the Smart Grid project.

3.1.5 Recommendation 5:

NSPI should include in its next load forecast more refined and empirically validated assumptions for any peak reduction benefit from solar generation.

NS Power Response:

NS Power agrees with this recommendation and will include more refined assumptions in the 2024 forecast. System peak reductions are currently estimated for the summer months; no peak reduction occurs in the winter months as the forecast peak occurs in the evening when the sun has set.

3.1.6 Recommendation 6:

NSPI should validate the use of new home construction as a proxy for customer growth, addressing concerns about potential shortcomings of this proxy variable. Given that NSPI has increased its forecast for new customer growth, it should carefully monitor trends and make any needed modifications in the next load forecast.

NS Power Response:

The new customer load forecast projections are updated annually based on the most recently available data from the Conference Board of Canada. A comparison of new customer data and

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housing completions was provided in Figure 16 of the Load Forecast Report and was further discussed in response to NSUARB IR-03 and Synapse IR-05.

3.1.7 Recommendation 7:

What are the net effects of shifting EV loads to the commercial sector? Does this perhaps change the system peak load patterns? And how might time of use rates apply?

NS Power Response:

As outlined in the report in Sections 6.0 and 10.0, and provided in response to Synapse IR-09, the EV loads in the commercial class are based on the coincident peak impact from shapes provided by E3 for workplace and public charging infrastructure and assume a combination of direct control and rate related peak reduction.

3.1.8 Recommendation 8:

Might there be overall benefits from expanding DSM programs in this sector?

NS Power Response:

As with Recommendation 1, appropriate levels of DSM are evaluated through the IRP exercise, not the load forecast. Please refer to the Company's recently completed Evergreen IRP proceeding and corresponding documentation at <https://irp.nspower.ca/documents/annual-evergreen-materials/>.

3.1.9 Recommendation 9:

What is the potential for expanding on-site solar as much of the commercial load coincides with solar generation?

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NS Power Response:

As discussed in Section 4.4 of the Load Forecast Report, commercial solar net metering uptake is modeled based on recent trends and expected changes related to updated legislation. The business case for on-site solar will vary from customer to customer and is beyond the scope of the Load Forecast Report.

Appropriate levels of solar generation are evaluated through the IRP exercise, not the load forecast. Please refer to the Company's recently completed Evergreen IRP proceeding and corresponding documentation at <https://irp.nspower.ca/documents/annual-evergreen-materials/>

3.1.10 Recommendation 10:

What is the potential for expanding the RTR program?

NS Power Response:

RTR sales are discussed in Section 4.1 and are forecast based on known projects. The business case for RTR uptake varies based on many factors, and estimating the potential for expansion is beyond the scope of the Load Forecast Report. Expanding the RTR program is not within NS Power's influence or mandate, as associated projects are developed by third-party independent developers and largely contingent on the ability of those developers to source customers and make an economic case for their development.

3.1.11 Recommendation 11:

We ask what is happening with the large general service customers? Are they implementing DSM measures to reduce load? Adding solar generation? Entering into RTR contracts? Might all this reduce their loads to some degree?

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NS Power Response:

Any available information pertaining to the topics above will be incorporated into the 2024 Load Forecast, but beyond the responses to the annual survey on expected changes to load (as self-reported by customers), the impact to the large general class is expected to be minimal.

3.1.12 Recommendations 12-13:

We ask NSPI to explore the likelihood and impacts of greater industrial electrification levels.

We ask NSPI to explore the potential for greater industrial savings.

NS Power Response:

Information pertaining to the increased industrial electrification or reductions in load will be incorporated into the 2024 Load Forecast. The load forecast does not consider all possible outcomes, only the most likely outcomes. Electrification is likely to increase load, while energy savings efforts will reduce load, both of which are captured by the high/low electrification scenarios as outlined in the IRP, and are provided for comparison in Figure 76 IRP Scenario Comparison in the 2023 Load Forecast Report.

3.1.13 Recommendations 14-15:

We ask NSPI to explore the impacts of real time rates.

We ask NSPI to explore the impacts of increases in industrial RTR.

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NS Power Response:

Rate design is beyond the scope of the load forecast, but potential impacts are incorporated as appropriate. A real-time pricing rate is currently available to industrial customers, but to date it is used by only one customer. Other industrial rates are in development for hydrogen production facilities which may include an element of self-supply. It is anticipated as the Company advances this work and gains experience with time-varying rates in the Residential and Commercial sectors, there may be opportunity for expansion of time-varying rate offerings in the industrial sector. Please also refer to the Company's response to Synapse recommendations 12-13 above.

3.1.14 Recommendation 16:

We ask NSPI to further investigate the commercial and industrial electrification prospects after 2026.

NS Power Response:

Please refer to response to recommendations 12-13.

3.1.15 Recommendation 17:

If DSM program savings are increased above historical levels, then the adjustment factors probably should be adjusted upward to reflect greater levels of incremental savings.

NS Power Response:

This recommendation is discussed in Section 4.6 of the Load Forecast Report.

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3.1.16 Recommendation 18:

We ask NSPI to explain why the future System Peak values do not equal the Firm Peak less the interruptible customers.

NS Power Response:

In Table 10 of Synapse’s submission, the firm peak equals the system peak, less the interruptible customers and DR impact.

3.1.17 Recommendation 19:

We ask NSPI to investigate what can be done with time-of-use rates and other measures to mitigate the peak load increases for all these components, especially for the commercial and industrial sectors.

NS Power Response:

Time varying pricing will play a role in future peak reduction, but rate design is beyond the scope of the Load Forecast Report. The load forecast currently incorporates peak reductions associated with managed EV charging, including time varying pricing, as well as the peak reductions from AMI-enabled time varying pricing. The load forecast will be updated as new information is gathered and analyzed through the Smart Grid project and time varying pricing pilot. Although the values will be updated to reflect learnings from these projects, the expected peak mitigation associated with these efforts is already included in the peak forecast.

3.1.18 Recommendation 20:

We ask NSPI to further investigate the performance of heat pumps during peak load conditions.

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NS Power Response:

NS Power agrees with this recommendation and will be looking to incorporate AMI data analysis in the coming years.

3.1.19 Recommendation 21:

We ask NSPI to further explore and evaluate the impacts of thermal storage, heat pump water heaters, and induction cooking technologies.

NS Power Response:

The impact of the above technologies is small at the moment, and there is very little data available about heat pump water heaters and induction stoves. For thermal storage, the existing rate class that was developed to encourage electric thermal storage has seen very modest uptake over the past 20 years, with approximately 13,000 customers currently and no expectation of significant changes in the timeframe of the load forecast. The increasing efficiencies in the underlying SAE model for cooking and water heating indirectly take technology improvement into account. NS Power will monitor the uptake of these technologies as they become more widespread, in order to determine whether their impact should be more thoroughly evaluated.

3.1.20 Recommendation 22:

We ask NSPI to quantify specifically the electrification and EV impacts for the commercial sector and to consider how this can be moderated.

NS Power Response:

As outlined in the response to Recommendation 7, the commercial EV loads are quantified, and commercial electrification is also quantified based on E3's work as outlined in Section 4.4. NS

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1 Power agrees that these assumptions need to be refined going forward as efforts to reduce
2 economy-wide carbon emissions are reflected in current trends.

3
4 **3.1.21 Recommendation 23:**

5
6 We recommend that there be future sensitivity analyses based upon
7 thoughtful/critical examination of realistic but aggressive proactive actions to
8 mitigate projected peak increases using newly available technology.
9

10 **NS Power Response:**

11
12 NS Power agrees with this recommendation and will incorporate scenarios that reflect potential
13 peak mitigation efforts related to newly available technology as information becomes available.
14 Peak mitigation is already incorporated in the forecast through managed EV charging as well as
15 time variable pricing and direct load control technology.
16

17 **3.2 Consumer Advocate**

18
19 The CA's evidence provides the following recommendations:¹⁰
20

21 **3.2.1 Recommendation 1:**

22
23 NS Power should use an estimate of 0.6 kW/vehicle for its EV charging forecast.
24

25 **NS Power Response:**

26
27 NS Power disagrees with this recommendation. The response to CA IR-03 states:
28

29 Please refer to the table below for the top 10 system peak hours using equivalent
30 EV charging and available vehicle counts. As discussed on page 41 of the report,
31 charging loads in the sample group peak between 11pm and midnight for reasons

¹⁰ M11108, Exhibit N-9, Evidence of John Wilson, July 18, 2023, page 3.

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1 that would not necessarily apply to the larger population and are not reflected in the
2 coincident peak estimate of EVs provided in Figure 30.

3
4 The data provided in Figure 1 of the CA’s evidence shows the top 10 system peak hours for 2022,
5 half of which occurred on a single day. The average provided in this table is not necessarily a
6 reflection of the overall impact of EV loads on peak, but rather indicates that the load can vary
7 substantially (from 0.36 kW/vehicle to 0.97 kW/vehicle within a single evening), and that more
8 data and analysis is required before extrapolating that data to a province-wide estimated EV peak
9 impact.

10
11 **3.2.2 Recommendation 2:**

12
13 NS Power should remove the peak reduction benefits associated with time-varying
14 pricing from its load forecast.

15
16 **NS Power Response:**

17
18 NS Power agrees that the forecast TVP peak savings are overstated for 2023 and 2024 based on
19 the pilot program participation. The forecast reductions of 4 MW for 2023 and 12 MW for 2024
20 amount to less than 1 percent of the estimated peak and would be of limited effect from a planning
21 perspective. The 2024 Load Forecast will be revised to account for changes to the estimated uptake
22 of the rates going forward.

23
24 NS Power disagrees with the recommendation to remove the savings from the load forecast. The
25 CA claims that “[n]either pilot is achieving demand reduction that can be counted on to reduce
26 peak demand” based on the fact that the existing pilot does not include peak periods on weekends
27 or holidays, and is not available at all hours. The CA points out that the coincidence of the
28 Adjusted Net Load (ANL) peaks with the TOU peak periods is low, citing data from the winter of
29 2022 where peak ANL demand extended beyond the peak period timeframe and several ANL
30 peaks occurred on weekends or between peak periods. NS Power acknowledges that more
31 flexibility in the ability to call CPP events would help to better align TVP-related peak savings

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1 with times where those savings are most required (i.e. times of high ANL where non-dispatchable
2 generation is low). To address this issue, in the TVP Pilot Project Report¹¹ filed in July, NS Power
3 recommends adopting two aspects of the proposed “CPP Advanced” tariff: allow for a limited
4 number of weekend events to be called and expand the time period to a sliding 4-hour event
5 window rather than the fixed periods in the original tariff.

6
7 Coincidence of peak periods with ANL is an important factor with regard to operational dispatch,
8 and, from the perspective of long-term planning of the system, an Equivalent Load Carrying
9 Capability (ELCC) is applied to the demand response available from TVP rates to account for the
10 fact it can support during some peak load periods but will not be available 100 percent of the time.
11 From the load forecast perspective, only system level peak demand is estimated, and the forecast
12 does not address how that demand is supplied, so ANL is not relevant in this case. Based on
13 historic system level peak demand, the system peak is likeliest to occur on a winter weekday
14 evening during the designated peak period, so it is reasonable to assume that any demand response
15 provided by the TVP rates will be coincident with this peak, subject to the ELCC that is applied to
16 those peak reductions. Regardless of the operational implications of coincidence with ANL, the
17 load forecast should continue to use the estimated ELCC adjusted peak savings associated with
18 TVP rates.

19
20 **3.2.3 Recommendation 3:**

21
22 NS Power should update its load forecast documentation to include the additional
23 details supplied in response to CA IR-10.
24

25 **NS Power Response:**

26
27 NS Power agrees with this recommendation and will include the details of the HeatUse, CoolUse
28 and OtherUse variables provided in CA IR-10 in Appendix B of the 2024 Load Forecast Report.
29

¹¹ M09777, Time Varying Pricing Pilot Program NS Power Year Two Report, July 28 2023, pg. 27-28

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3.2.4 Recommendation 4:

The Board should seek information on NS Power’s updated transformer sizing charts in this or some other appropriate proceeding to verify that transformers are being sized based on the latest available information regarding EV charging loads (see Recommendation 1 above).

NS Power Response:

Transformer sizing charts are used as a reference for Regional Planners at NS Power to determine the appropriate size of new or replacement service transformers. There are several factors used to determine transformer sizing, including the number of customers connected, panel sizes, and special loads such as EVs. Service transformers are not currently being replaced proactively in anticipation of EV loads, though the approach to this may evolve as EV and other electrification impacts are further assessed. NS Power understands that the EV charging loads referenced in the CA’s submission are based on system-wide diversity of charger use; this may not be an appropriate value for sizing transformers for either single customers or a small number of customers with EVs, for whom the service transformers will need to be sized to allow for simultaneous charging.

3.2.5 Recommendation 5:

NS Power should undertake or be directed to undertake updates to its distribution system planning methods and practices to consider the potential impacts of solar systems smaller than 100 kW and electrification of heating loads, especially in the small general sector.

NS Power Response:

The distribution generator interconnection requirements (< 100 kW) are updated based on the latest standards, including IEEE 1547-2018 and CSA C22.3 No 9:20. These requirements are intended to mitigate system impacts related to distributed generation such as solar. Revisions to NS Power’s distribution generator interconnection procedures are currently underway in proceedings related

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1 to the Commercial Net Metering Program and Review of NS Power’s Interconnection Processes.
2 These revisions will include consideration of generation under 100 kW.

3
4 NS Power is also developing methods to model the distribution system at higher levels of
5 granularity using AMI meter data and customer demographics. These models will be capable of
6 time series analysis by distribution feeder, which will identify system impacts at current and
7 forecasted levels of load and distributed generation.

8
9 **3.3 Small Business Advocate**

10
11 The SBA’s submission contained the following recommendations:¹²

12
13 **3.3.1 Recommendation 1:**

14
15 The SBA recommends the inclusion of a low-adoption electrification scenario to
16 supplement the understanding of system needs in the absence of incentive-informed
17 uptake scenarios.

18
19 **NS Power Response:**

20
21 Scenario development takes place within the IRP exercise, and a range of electrification scenarios,
22 including lower electrification, is included in the Evergreen IRP update.

23
24 **3.3.2 Recommendation 2:**

25
26 The SBA also recommends a review of historical load survey sales realization for
27 survey-based class sales forecasts...

28

¹² M11108, SBA Submission, July 18, 2023, page 3.

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NS Power Response:

NS Power agrees with this recommendation and will provide a comparison in the 2024 Load Forecast Report.

3.3.3 Recommendation 3:

The SBA also recommends ... the identification of the impact of RTR loads on rate classes when utilized in rate case or IRP matters.

NS Power Response:

As with the 2023 Load Forecast Report, assumptions on the RTR impact to the forecast will continue to be identified and discussed in future reports.

3.4 NSUARB Letter Re: M11108 – Nova Scotia Power Inc. – 2023 Load Forecast Report (P-194), August 28, 2023

In its letter dated August 28, 2023 regarding the 2023 Load Forecast report, the Board provided the following direction:

On August 23, 2023, the Board was notified that Renewall Energy Inc. has withdrawn its contractual agreement with a medium industrial customer to commence Renewable to Retail service in September 2023. The Board understands that the load of this customer will remain with Nova Scotia Power Inc. (NS Power).

In NS Power's 2023 Load Forecast Report, it was identified that the load of this customer group is flat except for a downward shift attributed to a customer switching service to Renewable to Retail provider. The unplanned continuation of this customer's service with NS Power represents an increase in load for 2023.

The Board directs NS Power to address this increase to load in its Rebuttal Evidence to be filed with the Board by September 14, 2023.¹³

¹³ NSUARB Letter re: M11108 – Nova Scotia Power Inc. - 2023 Load Forecast Report (P-194), August 28, 2023.

2023 Load Forecast Report – Rebuttal Evidence
Non-Confidential

NS Power Response:

The load forecast represents a point in time when the forecast was produced based on the information known at that time. Updating the load forecast for an isolated change to a single assumption would not provide additional meaningful clarity. A full refresh of all assumptions with known factors is best practice, and this is captured through the annual load forecast submission and proceeding. NS Power intends to continue to adhere to this process and capture any RTR changes and details in the 2024 Load Forecast report.

**2023 Load Forecast Report – Rebuttal Evidence
Non-Confidential**

4.0 CONCLUSION

Submission of the Load Forecast Report is an annual requirement under the provisions of the Nova Scotia Wholesale and Renewable to Retail Market Rules. Since 2007, NS Power has continued to refine its load forecast, with input from Synapse, and over the last several years with input from other parties as part of a public proceeding. Each annual Load Forecast report reflects continuous improvement in methodologies and better explanation of the inputs and models as confirmed by Synapse.

NS Power appreciates the comments and feedback on the Load Forecast Report. Pursuant to the Company's responses in Section 3 of this reply, NS Power has considered the comments and feedback received and, subject to the Board's determination in this matter, will incorporate adjustments in the next annual Load Forecast Report where appropriate.

NS Power respectfully requests that the NSUARB accept the 2023 Load Forecast Report, as filed.